

#### REMARKS

Claims 1-23 were previously pending in this application. Claims 22 and 23 have been cancelled, and therefore the Examiner's rejections of these claims are moot. Claims 24 and 25 have been added.

Claims 5 and 6 have been rejected under 35 USC § 112, first paragraph. Claims 1-21 have been rejected under 35 USC § 103(a) as unpatentable over applicants' admitted prior art found in the background on pages 3-5 and prior art figure 1. The Examiner has taken official notice that it is common knowledge to incorporate a polymer dispersed liquid crystal cell in order to decrease the thickness since substrates are no longer necessary. Applicants traverse this assertion of official notice by the Examiner.

The Examiner has rejected claims 5 and 6 under 35 USC § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. However, claims 5 and 6 satisfy 35 USC § 112, first paragraph because a person of ordinary skill in the art understands that a protective coating, such as cellulose triacetate, provides a polarizer with protection, e.g., from moisture and/or heat, and an adhesive layer, such as a pressure sensitive adhesive, may attach a polarizer to a liquid crystal display cell. See, e.g., specification page 2, paragraph 7 and page 5, paragraph 15.

Amended independent claims 1, 19, and 21 recite, among other things, a liquid crystal display structure providing a moisture vapor transmission rate of less than about 4.6 gm/m<sup>2</sup>/day and an oxygen transmission rate of less than about 0.005 ml/m<sup>2</sup>/day comprising a liquid crystal display cell having a front surface and a front intrinsic polarizer disposed adjacent to the front surface of the liquid crystal display cell, the front intrinsic polarizer lacking a protective coating



thereon. New independent claim 24 recites, among other things, an optical system comprising a liquid crystal display structure providing a moisture vapor transmission rate of less than about 4.6 gm/m<sup>2</sup>/day and an oxygen transmission rate of less than about 0.005 ml/m<sup>2</sup>/day comprising a liquid crystal display cell having a front surface and a front intrinsic polarizer disposed adjacent to the front surface of the liquid crystal display cell, the front intrinsic polarizer lacking a protective coating thereon.

Amended independent claims 1, 19, and 21, and independent claim 24 are patentable over applicants' admitted prior art found in the background on pages 3-5 and prior art figure 1 because none of these references, either alone or in combination, shows or suggests a liquid crystal display structure having a moisture vapor transmission rate of less than about 4.6 gm/m<sup>2</sup>/day and an oxygen transmission rate of less than about 0.005 ml/m<sup>2</sup>/day comprising a liquid crystal display cell and an intrinsic polarizer lacking a protective coating disposed adjacent to the liquid crystal display cell. The applicants' admitted prior art found in the background on pages 3-5 discloses an intrinsic polarizer, such as a K-type polarizer, and teaches such polarizers are superior in heat and moisture resistance to non-intrinsic type polarizers. The admitted prior art does not disclose or suggest intrinsic polarizers that may provide an effective gas and moisture permeability barrier to the liquid crystal material in the liquid crystal display cell so that no additional barrier layers are necessary. Prior art figure 1 discloses a liquid crystal display structure having a liquid crystal cell and polarizer structures with protective coatings attached to both surfaces of the liquid crystal display cell.

Dependent claims 2-18, 20, and 25 depend directly or indirectly from independent claims 1, 19, and 24 and thus contain all of the limitations of the independent claims from which they depend. Therefore, these dependent claims are patentable over applicants' admitted prior art



APPLICANT: Giorgio Trapani et al.  
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found in the background on pages 3-5 and prior art figure 1 either alone or in combination, for at least the same reasons set forth above with respect to claims 1, 19, 21, and 24.

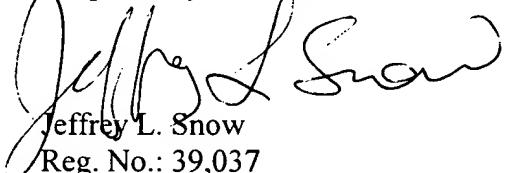
Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Enclosed is a Petition for a One Month Extension of Time with the fee of \$110.00 as set forth in 37 C.F.R. §1.17(a)(1).

A supplemental Information Disclosure Statement is also being filed herewith with the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p).

Applicants submit that claims 1-21 and 24-25 are in condition for allowance, which action is requested. Please apply any charges or credits to Deposit Account No. 50-1721.

Respectfully submitted,



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Claims:

Claims 22 and 23 have been cancelled without prejudice. Claims 1, 19, and 21 have been amended as follows:

1. (Amended) A liquid crystal display structure providing a moisture vapor transmission rate of less than about 4.6 gm/m<sup>2</sup>/day and an oxygen transmission rate of less than about 0.005 ml/m<sup>2</sup>/day, the liquid crystal display structure comprising:

a liquid crystal display cell having a front surface and a back surface; and  
a front intrinsic polarizer disposed adjacent to the front surface of the liquid crystal display cell, the front intrinsic polarizer lacking a protective coating thereon.

19. (Amended) A liquid crystal display structure providing a moisture vapor transmission rate of less than about 4.6 gm/m<sup>2</sup>/day and an oxygen transmission rate of less than about 0.005 ml/m<sup>2</sup>/day, the liquid crystal display structure comprising:

a liquid crystal display cell having a front surface; and  
an intrinsic polarizer having a first surface disposed adjacent to the front surface of the liquid crystal display cell and a second surface, the intrinsic polarizer lacking a protective coating thereon; and

a conductor disposed adjacent to the second surface of the intrinsic polarizer.

21. (Amended) A liquid crystal display structure providing a moisture vapor transmission rate of less than about 4.6 gm/m<sup>2</sup>/day and an oxygen transmission rate of less than about 0.005 ml/m<sup>2</sup>/day, the liquid crystal display structure comprising:

a liquid crystal display cell having a front surface and a back surface; and  
a front K-type polarizer disposed adjacent to the front surface of the liquid crystal display

cell, the front K-type polarizer lacking a protective coating thereon; and  
a back K-type polarizer disposed adjacent to the back surface of the liquid crystal display  
cell, the back K-type polarizer lacking a protective coating thereon.

Claims 24 and 25 were added, as follows:

24. (New) An optical system comprising:

a liquid crystal display structure providing a moisture vapor transmission rate of less than  
about 4.6 gm/m<sup>2</sup>/day and an oxygen transmission rate of less than about 0.005 ml/m<sup>2</sup>/day, the  
liquid crystal display structure comprising a liquid crystal display cell having a front surface and  
a back surface and a front intrinsic polarizer disposed adjacent to the front surface of the liquid  
crystal display cell, the front intrinsic polarizer lacking a protective coating thereon.

25. (New) The optical system of claim 24 wherein the liquid crystal display structure  
further comprises a back intrinsic polarizer disposed adjacent to the back surface of the liquid  
crystal display cell, the back intrinsic polarizer lacking a protective coating thereon.

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